

REMARKS

In the Office Action dated January 26, 2006, claims 1, 10, 12-15 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Belt et al. Claims 2-9, 11 and 16-18 were stated to be allowable if rewritten independent form.

Applicant notes with appreciation the interview courteously afforded the undersigned counsel for the Applicant on April 4, 2006, wherein the above amendments to the claims were proposed and discussed. An agreement as to allowance was not reached at the interview, nor did the Examiner make a commitment at the interview that such an amendment would be entered at the present stage of prosecution, after the final rejection. It was agreed at the interview that such an amendment would be prepared and filed, and it would also be argued that the claims already inherently include the limitation that is now being made by the added claim language. The Examiner stated he would make a decision upon reviewing the amendment not only as to allowability, but also as to whether it would be necessary to actually enter the changes to the claim language, or whether it would be satisfactory to rely on the inherency of that feature in the existing claim language.

First, as discussed at the interview, it is important to note that in the subject matter disclosed and claimed in the present application, as well as in the prior art, overlapping of the conductor loops of adjacent antennas is undertaken to *decouple* those antennas, rather than to *couple* those antennas. This is described in the paragraph bridging pages 2 and 3 of the present specification, and is explicitly stated at column 2, lines 6-14 of United States Patent No. 4,825,162, which is discussed at that portion of the present specification and was made of record as Reference AB in

the Information Disclosure Statement filed January 23, 2004. As stated at the cited passage of the '162 patent, surface coils are closely-spaced with respect to each other in order to cause those coils to have substantially no interaction with all adjacent surface coils.

In the Office Action at page 3, paragraph 3, the Examiner stated "without overlapping coils, there is no coupling." In view of the double negative in that statement, it is not entirely clearly as to the meaning intended by the Examiner, however, as Applicant interprets that statement, it is the opposite of what is taking place in the present application. It appears that the rejection of the Examiner was at least in part based on the assumption that when two coils overlap, this is for the purpose of coupling the coils, however, as noted above in fact the opposite is true.

As also discussed at the interview, and as discussed in Applicant's previous response, Applicant believes the Examiner's selected grouping of coils is arbitrary and is contrary to the different groups of coils that are clearly disclosed, and intended for use, in the Belt et al reference. As discussed at the interview, however, this appears to be moot point, because there is no teaching in the Belt et al reference that the different groups of coils, which include the coils identified by the Examiner, are ever operated simultaneously (i.e., are never ever simultaneously active) so that there is current flowing in the two identified coil groups simultaneously.

The arrangement of the coils shown in Figures 2A and 2B of the Belt et al reference merely indicates a possible physical relationship of the coils, so that they can be adjusted in position to accommodate persons of different size, to obtain different images of different regions of different persons. Although in the particular arrangement shown in Figure 2B of the Belt et al reference, for example, the coil 45

is shown as overlapping with the coils 46 and 47, it is clear from the teaching of Belt et al that coil 45 is not activated simultaneously with either of coils 46 and 47, because they are intended to obtain different images of different regions of differently sized patients. This is made clear at numerous locations in the Belt et al. As stated at column 3, lines 54-60 thereof, only some of the surface coils are activated at any given time to be in the "receive state" so as to produce RF signals. As stated at column 12, lines 47-52, the driver controller 260 outputs signals on the coil enable inputs 261 to enable the coils that are to be used for imaging and disable the remaining coils.

Although not all examples of all different types of active combinations are provided in the Belt et al reference, the example described at column 13, lines 37 through 52, with reference to the table shown in Figure 18, makes clear that coil 45 is not operated (activated) simultaneously with coils 46 and 47. As can be seen from the table in Figure 18, coil 45 is among the coils that are used to obtain an image of the femorals (thighs) and knees on a tall person. Coils 46 and 47 are among the coils that are used to image the lower legs on an average person. Therefore, not only is the coil 45 used to obtain an image of a different region from the coils 46 and 47 (femorals as opposed to lower legs), but also the coil 45 is intended for use on a completely different person than the coils 46 and 47 (tall person opposed to an average person).

Applicant does not find any teaching anywhere in the Belt et al reference that coil 45 is activated is simultaneously with either of coils 46 and 47. Therefore, the aforementioned overlapping question is irrelevant. Even if the coils might happen to be physically located as shown in Figure 2B of the Belt et al reference, only one of

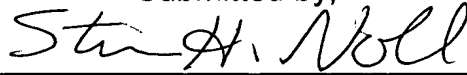
those groups will be enable while the other is not enabled, and therefore the physical overlapping is irrelevant as to whether coupling or decoupling occurs. Clearly no coupling can occur with a coil group that is not enabled (i.e., has no current flowing therein).

Based on this discussion at the interview, it was agreed to submit an Amendment wherein each of the independent claims would be amended to state that the first and second coil groups are simultaneously active. As also discussed at the interview, Applicant believes this limitation is inherent in the existing language of the claims, since each of those claims requires certain of the coils to be coupled, and such coupling can occur only if the two coil groups are simultaneously active. Moreover, dependent claim 2, which the Examiner has already indicated to contain allowable subject matter, specifically refers to equalizing respective currents in the first group coupler antenna part and in the second group coupler antenna part, thereby making it clear that the subject matter of claim 1, from which claim 2 depends, must have respective currents flowing in the two antenna groups simultaneously.

For this reason, Applicant submits that this Amendment not only highlights a reason why the Belt et al reference does not anticipate any of the independent claims, but also does not raise a new issue requiring further searching or consideration. Nevertheless, if the Examiner is satisfied that the existing language of the claims, without the present Amendment, inherently includes the aforementioned feature, Applicant has no objection to the claims being allowed in their previous form, without the present Amendment.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,



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